

What is claimed is:

1. A wiring board comprising:

a substrate;

5 an interconnect layer formed of a plurality of layers, the interconnect layer being formed over the substrate; and

a plurality of electrodes formed to overlap the interconnect layer;

wherein an interconnecting pattern has at least three interconnecting lines disposed parallel to each other at the same intervals under the electrodes, the
10 interconnecting pattern being positioned in one of the plurality of layers forming the interconnect layer.

2. A wiring board comprising:

a substrate;

15 an interconnect layer formed of a plurality of layers, the interconnect layer being formed over the substrate; and

a plurality of electrodes formed to overlap the interconnect layer;

wherein a part of a first interconnecting pattern and a part of a second interconnecting pattern are disposed to extend in directions forming a lattice under each
20 of the electrodes, the first interconnecting pattern being positioned in a first layer among the plurality of layers forming the interconnect layer, the second interconnecting pattern being positioned in a second layer among the plurality of layers forming the interconnect layer.

25 3. A wiring board comprising:

a substrate;

an interconnect layer formed of a plurality of layers, the interconnect layer

being formed over the substrate; and

a plurality of electrodes formed to overlap the interconnect layer;

wherein first and second interconnecting patterns positioned respectively in first and second layers among the plurality of layers forming the interconnect layer have portions extending parallel to each other under each of the electrodes, and the parallel extending portions are formed not to overlap each other.

4. A wiring board comprising:

a substrate;

an interconnect layer formed of a plurality of layers, the interconnect layer being formed over the substrate; and

a plurality of electrodes formed to overlap the interconnect layer;

wherein an interconnecting pattern positioned in one of the plurality of layers forming the interconnect layer has an interconnecting line isolated from electrical connection under each of the electrodes.

5. The wiring board as defined in claim 1, further comprising:

an organic resin layer formed to cover the interconnect layer, and having an upper surface made flat,

wherein the electrodes are formed over the organic resin layer and are electrically connected to at least one of plurality of layers forming the interconnect layers by passing through the organic resin layer.

6. The wiring board as defined in claim 2, further comprising:

an organic resin layer formed to cover the interconnect layer, and having an upper surface made flat,

wherein the electrodes are formed over the organic resin layer and are

electrically connected to at least one of plurality of layers forming the interconnect layers by passing through the organic resin layer.

7. The wiring board as defined in claim 3, further comprising:

5 an organic resin layer formed to cover the interconnect layer, and having an upper surface made flat,

wherein the electrodes are formed over the organic resin layer and are electrically connected to at least one of plurality of layers forming the interconnect layers by passing through the organic resin layer.

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8. The wiring board as defined in claim 4, further comprising:

an organic resin layer formed to cover the interconnect layer, and having an upper surface made flat,

wherein the electrodes are formed over the organic resin layer and are
15 electrically connected to at least one of plurality of layers forming the interconnect layers by passing through the organic resin layer.

9. An electro-optical device comprising:

the wiring board as defined in claim 1; and

20 a functional layer for constituting an electro-optical element, the functional layer being formed in a first region of each of the electrodes;

wherein each of the electrodes and one of the plurality of layers forming the interconnect layer supplying power to the electrode are connected in a second region of the electrode.

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10. An electro-optical device comprising:

the wiring board as defined in claim 2; and

a functional layer for constituting an electro-optical element, the functional layer being formed in a first region of each of the electrodes;

wherein each of the electrodes and one of the plurality of layers forming the interconnect layer supplying power to the electrode are connected in a second region of the electrode.

11. An electro-optical device comprising:

the wiring board as defined in claim 3; and

a functional layer for constituting an electro-optical element, the functional layer being formed in a first region of each of the electrodes;

wherein each of the electrodes and one of the plurality of layers forming the interconnect layer supplying power to the electrode are connected in a second region of the electrode.

12. An electro-optical device comprising:

the wiring board as defined in claim 4; and

a functional layer for constituting an electro-optical element, the functional layer being formed in a first region of each of the electrodes;

wherein each of the electrodes and one of the plurality of layers forming the interconnect layer supplying power to the electrode are connected in a second region of the electrode.

13. An electronic instrument comprising the electro-optical device as defined in claim 9.

14. An electronic instrument comprising the electro-optical device as defined in claim 10.

15. An electronic instrument comprising the electro-optical device as defined in claim 11.

5 16. An electronic instrument comprising the electro-optical device as defined in claim 12.

17. A method of manufacturing a wiring board, comprising:

forming an interconnect layer over a substrate, the interconnect layer being
10 formed of a plurality of layers;

forming an organic resin layer to cover the interconnect layer, and having an upper surface of the organic resin layer made flat; and

forming a plurality of electrodes on the organic resin layer to overlap the interconnect layer,

15 wherein an interconnecting pattern positioned in any one of the plurality of layers forming the interconnect layer is formed under each of the electrodes, to have at least three interconnecting lines extending parallel to each other at the same intervals.

18. A method of manufacturing a wiring board, comprising:

20 forming an interconnect layer over a substrate, the interconnect layer being formed of a plurality of layers;

forming an organic resin layer to cover the interconnect layer, and having an upper surface of the organic resin layer made flat; and

forming a plurality of electrodes on the organic resin layer to overlap the
25 interconnect layer,

wherein a part of a first interconnecting pattern and a part of a second interconnecting pattern are disposed to extend in directions forming a lattice under each

of the electrodes, the first interconnecting pattern being positioned in a first layer among the plurality of layers forming the interconnect layer, the second interconnecting pattern being positioned in a second layer among the plurality of layers forming the interconnect layer.

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19. A method of manufacturing a wiring board, comprising:

forming an interconnect layer over a substrate, the interconnect layer being formed of a plurality of layers;

forming an organic resin layer to cover the interconnect layer, and having an upper surface of the organic resin layer made flat; and

forming a plurality of electrodes on the organic resin layer to overlap the interconnect layer,

wherein first and second interconnecting patterns positioned respectively in first and second layers among the plurality of layers forming the interconnect layer are formed to have portions extending parallel to each other under each of the electrodes, and the parallel extending portions are formed not to overlap.

20. A method of manufacturing a wiring board, comprising:

forming an interconnect layer over a substrate, the interconnect layer being formed of a plurality of layers;

forming an organic resin layer to cover the interconnect layer, and having an upper surface of the organic resin layer made flat; and

forming a plurality of electrodes on the organic resin layer to overlap the interconnect layer,

wherein an interconnecting pattern positioned in one of the plurality of layers forming the interconnect layer is formed to have an interconnecting line isolated from electrical connection under each of the electrodes.

21. The method of manufacturing a wiring board as defined in claim 17,
wherein the process of forming the organic resin layer includes applying an
organic resin precursor.

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22. The method of manufacturing a wiring board as defined in claim 18,
wherein the process of forming the organic resin layer includes applying an
organic resin precursor.

10 23. The method of manufacturing a wiring board as defined in claim 19,
wherein the process of forming the organic resin layer includes applying an
organic resin precursor.

15 24. The method of manufacturing a wiring board as defined in claim 20,
wherein the process of forming the organic resin layer includes applying an
organic resin precursor.

25. The method of manufacturing a wiring board as defined in claim 21,
wherein the organic resin precursor is applied by spin coating.

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26. The method of manufacturing a wiring board as defined in claim 22,
wherein the organic resin precursor is applied by spin coating.

25 27. The method of manufacturing a wiring board as defined in claim 23,
wherein the organic resin precursor is applied by spin coating.

28. The method of manufacturing a wiring board as defined in claim 24,

wherein the organic resin precursor is applied by spin coating.

29. A method of manufacturing an electro-optical device, comprising:

manufacturing a wiring board by the method as defined in claim 17; and

5 forming a functional layer for constituting an electro-optical element in a first region of each of the electrodes,

wherein each of the electrodes and one of the plurality layers forming the interconnect layer supplying power to the electrode are connected in a second region of the electrode.

10 30. A method of manufacturing an electro-optical device, comprising:

manufacturing a wiring board by the method as defined in claim 18; and

forming a functional layer for constituting an electro-optical element in a first region of each of the electrodes,

15 wherein each of the electrodes and one of the plurality layers forming the interconnect layer supplying power to the electrode are connected in a second region of the electrode.

31. A method of manufacturing an electro-optical device, comprising:

20 manufacturing a wiring board by the method as defined in claim 19; and

forming a functional layer for constituting an electro-optical element in a first region of each of the electrodes,

wherein each of the electrodes and one of the plurality layers forming the interconnect layer supplying power to the electrode are connected in a second region of the electrode.

25 32. A method of manufacturing an electro-optical device, comprising:

manufacturing a wiring board by the method as defined in claim 20; and
forming a functional layer for constituting an electro-optical element in a first
region of each of the electrodes,

5 wherein each of the electrodes and one of the plurality layers forming the
interconnect layer supplying power to the electrode are connected in a second region of
the electrode.